



# EPA Onsite/Decentralized Management Guidelines



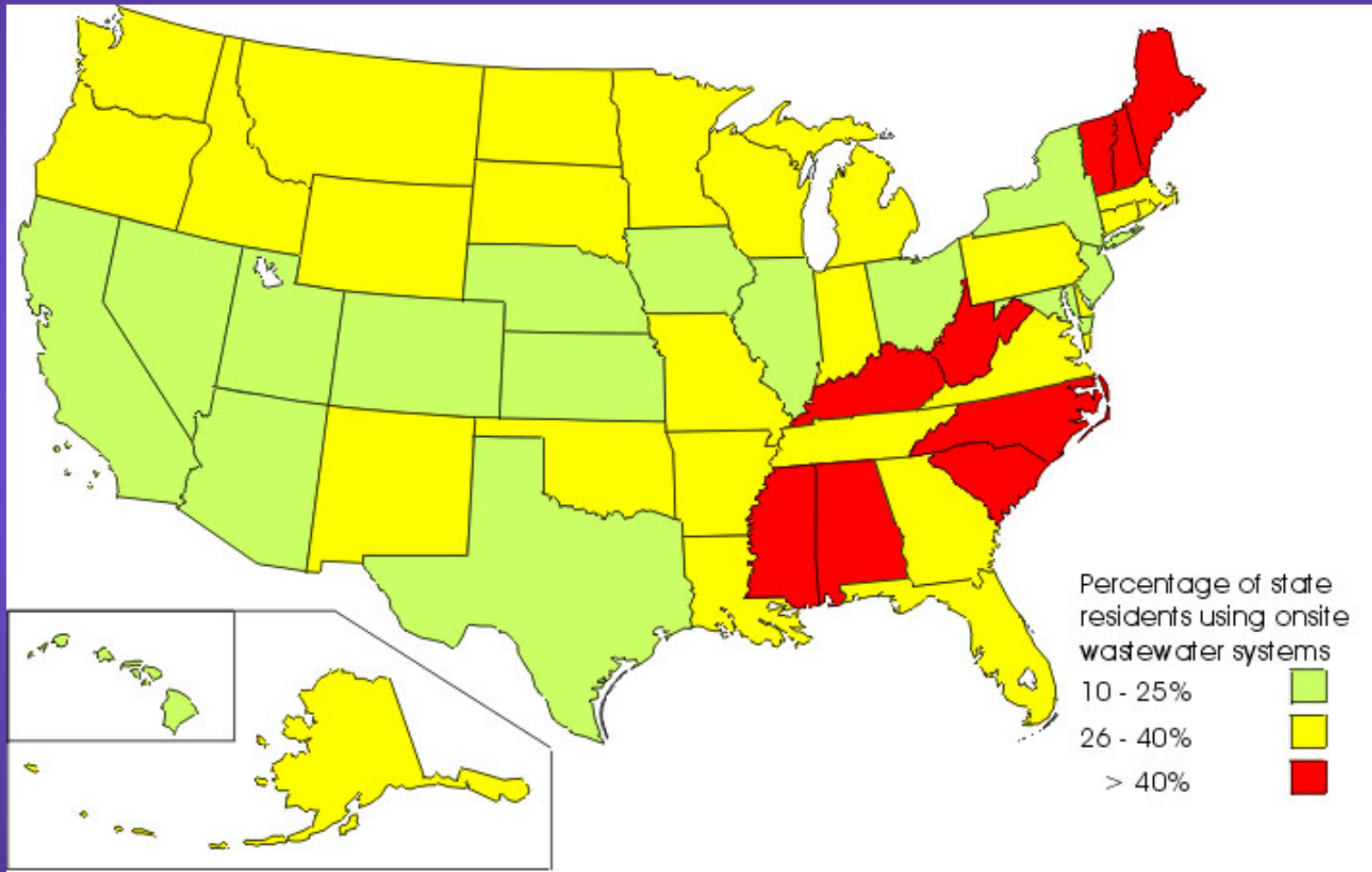


# Water Quality Problems on a National Scale

- 🕒 **10-30% of systems failing annually**
- 🕒 **At least 10% of systems >30 yrs. old**
- 🕒 **Not meeting Clean Water Act goals**



# *Percentage of State Residents Using Onsite Systems*



Source: U.S. Census Bureau, 1990





## *Report Conclusion:*

“Adequately managed decentralized wastewater systems are a cost-effective and long-term option for meeting public health and water quality goals.”



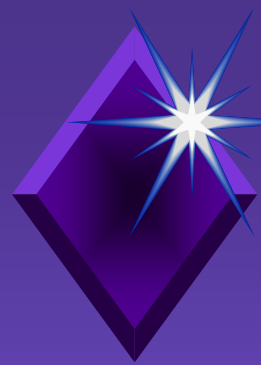


# *EPA's National Strategy*

- ◆ Develop National Guidelines
- ◆ Coordinate with all Water Programs
- ◆ Facilitate Activities within Industry
- ◆ Encourage Implementation by Industry
- ◆ Focus on Rural/Low Income/Minority
- ◆ Conduct Outreach







# *Management's Advantages*





# *What is a Management Program?*

- ◆ A series of processes that address:
  - ◆ *Public awareness and acceptance*
  - ◆ *Ground and surface water protection requirements*
  - ◆ *Siting, sizing, design and installation*
  - ◆ *Operation and maintenance*
  - ◆ *Residuals management*
  - ◆ *Monitoring and reporting*
  - ◆ *Enforcement (if needed)*







# *Management Requires Patience*







# *National Management Guidelines*

- ◆ Provides EPA recommendations
- ◆ Establishes goals for management
- ◆ Institutionalizes concept
- ◆ Voluntary
- ◆ Comprehensive programs
- ◆ Final guidelines summer, 2002





# *Management Guidelines*

- ◆ Progressive series of 5 levels
  - ◆ *As resource sensitivity and technology increases, so does the management level*
- ◆ Do not supercede existing laws
- ◆ Surface and subsurface discharges
- ◆ For existing, new and all sized systems





# *Model Program #1*

## *Inventory and Maintenance Reminders*

- ◆ Covers conventional septic systems
- ◆ Local agency is aware of system locations
- ◆ Properly sited and installed
- ◆ Periodic operation and maintenance reminders





## *Model Program #2* *Maintenance Contracts*

- ◆ Certain systems given more attention
- ◆ Allows for more complex options
  - ◆ *e.g., aerobic systems, package plants*
- ◆ Maintenance contracts with trained service providers







## *Model Program #3* *Operating Permits*

- ◆ Performance requirements
- ◆ Renewable operating permits
- ◆ Regular reporting and monitoring
  - ◆ *e.g., commercial systems, large dischargers*





## *Model Program #4*

### *Responsible Management Entity Operation and Maintenance*

- ◆ Management entity (public or private)
- ◆ Responsible for operation and maintenance
- ◆ Ensures consistent performance
- ◆ Routine inspections





## *Model Program #5* *Responsible Management Entity Ownership and Management*

- ◆ Professional management of all activities
  - ◆ *Comparable to centrally sewer management*
- ◆ Allows area-wide management
- ◆ Reduces oversight by regulatory agency





# *Accompanying Management Handbook*

- ◆ Process for applying guidelines
- ◆ Will include case studies and examples
- ◆ Describes management activities
- ◆ Includes management entity options
- ◆ References the *Onsite Manual* and other efforts







# *Management Handbook*

- ◆ Materials that are useful
- ◆ Audience is state/local regulatory personnel and service providers
- ◆ Stakeholders are guiding handbook





# *Management Handbook*

- ◆ Steering Committee guiding development
  - ◆ *Stakeholders from all parts of the onsite industry*
    - ◆ State and local regulators (John Higgins)
    - ◆ Local elected officials
    - ◆ Service providers (pumpers/haulers/installers)
    - ◆ Engineering consultants
    - ◆ Academia
    - ◆ Extension service
    - ◆ RCAP





# *Management Handbook*

## ◆ Major pieces

- ◆ *Public awareness/education tools*
- ◆ *Case studies of management programs*
- ◆ *Database for inventorying*
- ◆ *Examples of funding*
- ◆ *Model codes/ordinances*
- ◆ *Septage management examples*





# *Other EPA Activities for Onsite Systems*







# *Funding - Clean Water SRF*

- ◆ Onsite/Cluster Systems are Eligible
- ◆ Must be in Nonpoint Source Plan
- ◆ Homeowners, Non-Profits are Eligible
- ◆ Management Program is Eligible
- ◆ Terms and Availability:
  - ◆ *Vary by State*





# *Funding - Other Sources*

- ◆ Nonpoint Source Grants (Section 319)
- ◆ USDA - Rural Utilities Service
- ◆ HUD - Community Development Block Grants
- ◆ State funding programs
- ◆ EPA demonstration grants





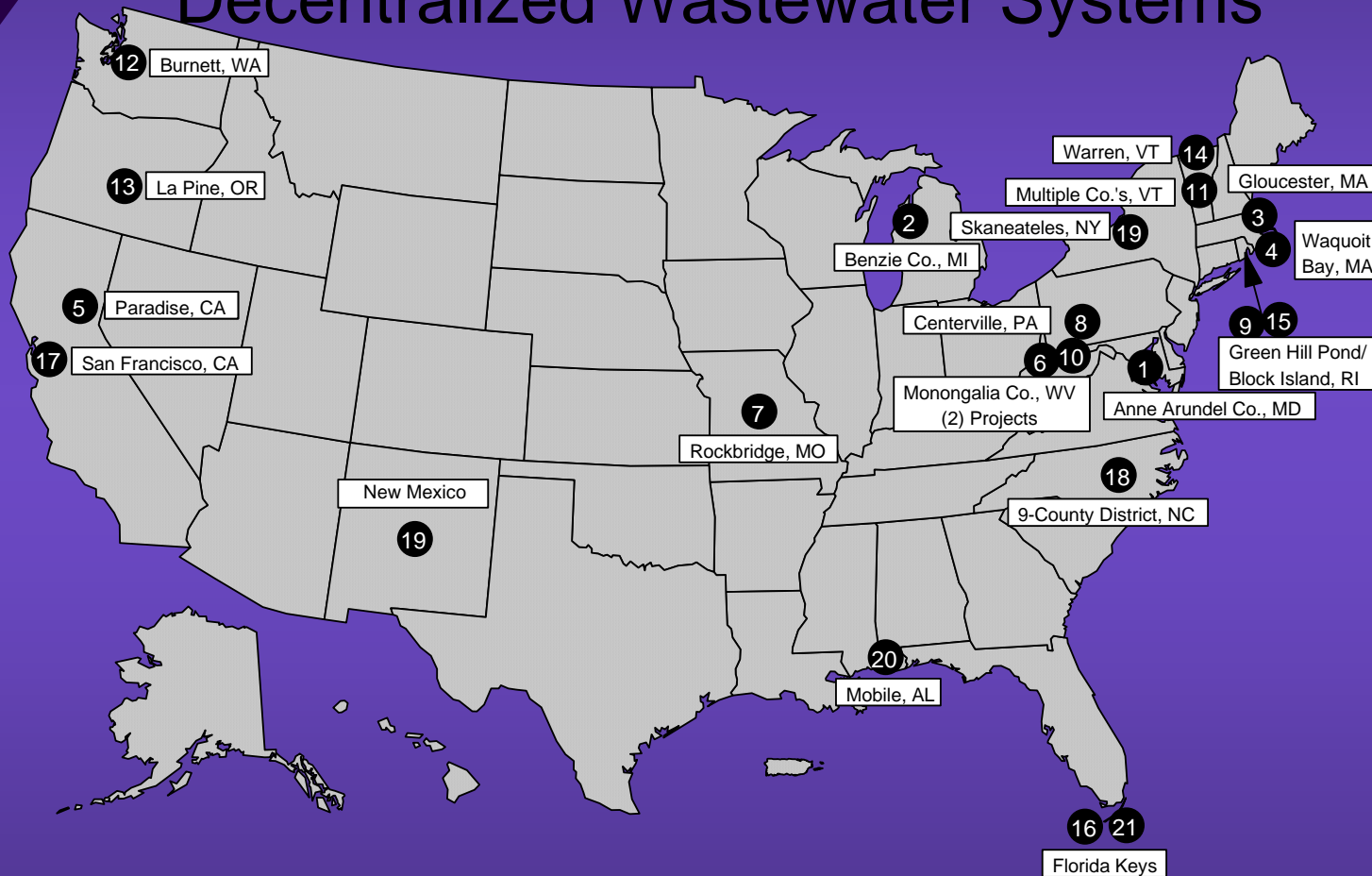
# *Underground Injection Control Program*

- ◆ Lawsuit addresses septics
- ◆ Cesspools banned
- ◆ Large Capacity Septic Systems
  - ◆ *20 or more people/day, sanitary waste only*
  - ◆ *Estimated 300,000 systems in U.S.*
  - ◆ *EPA Study completed*
  - ◆ *No additional regulation recommended*





# EPA-Funded Demonstrations of Decentralized Wastewater Systems







# *Technical Information and Assistance*

- ◆ Onsite Design Manual
- ◆ Technology Fact Sheets
- ◆ National Small Flows Clearinghouse
- ◆ National Environmental Training Center for Small Communities
- ◆ Capacity Development Project



**Kentucky Horseshoes**





*Environmental  
Technology  
Verification*

## **Source Water Protection**

- Protocols for Ready Technology
- Credible Operating Data
- Distribution of Verification Results
- Widespread Acceptance
- Technologies include nutrient removal, high strength wastes, disinfection





# *Partners*

- ◆ National Small Flows Clearinghouse
- ◆ National Environmental Health Association
- ◆ National Onsite Wastewater Recycling Association
- ◆ National Association of Towns and Townships
- ◆ Rural Community Assistance Program
- ◆ National Association of Waste Transporters
- ◆ National Association of County Officials
- ◆ State health departments





# *Links to Other EPA Programs*

◆ UIC, SWP

◆ TMDL

◆ Wetlands

◆ NEP

◆ CZARA, Non-Point Source

◆ Beach Watch, Shellfish Protection



**Oceans and  
Coastal Protection**





# Decentralized Web Site

<http://www.epa.gov/owm/decent/index.htm>

